

Date: Tuesday, 08/04/2008 4:54:55 PM
 User: Julie Lecocq

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: 350 SKIDTUBE EXTRUSION (BENT)
Job Number	: 38463		
Estimate Number	: 10997		
P.O. Number	:	Part Number	: D26003BENT
This Issue	: 08/04/2008	Drawing Number	: D2600 D1/D2750 E
Prsht Rev.	: NC	Project Number	: N/A
First Issue	: 1/	Drawing Revision	: D1/E
Previous Run	: 37858	Material	:
Written By	:	Due Date	: 30/04/2008
Checked & Approved By	: <u>JD 08.4.09</u>	Qty:	30 / 12 Um: Each
Comment	: Est. B02.11.28 Reformat KJ		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	D26003120	Extrusion Round 3" 350
-----	-----------	------------------------



Comment: Qty.: 1.0000 Each(s)/Unit Total : 12.0000 Each(s)

Extrusion Bent

Pick:

Qty	Part Number	Description	Batch
1	D2600-3	Extrusion	B30682

PL 8-4-17 (31)

2.0	BENDING	BENDING MACHINE - SKIDTUBES
-----	---------	-----------------------------



(PB)

Comment: BENDING MACHINE

Deburr one end of extrusion

Drill #30 pilot holes using DT8689

Open holes to 5/16" and deburr

Bend using CNC bending machine as per program 2750.C and Folio FT003.

Use 5/16 locator pin on buggy "A".

Check fit to Jig DT8150

PL 8-4-18 (30)

3.0	QC5	INSPECT WORK TO CURRENT STEP
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**Comment:** INSPECT WORK TO CURRENT STEP

Inspect work to Step 6 Ensure fit to Jig DT8150

L 08/04/18 (30)

4.0	PACKAGING 1	PACKAGING RESOURCE #1
-----	-------------	-----------------------

**Comment:** PACKAGING RESOURCE #1

Identify and Stock

Location: L 5 (Skid tubes)

PL 8-4-18

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D2600-3-BENT PAR #: N/A Fault Category: Prod / Skid tube NCR: Yes No DQA: D Date: 08/04/03
 QA: N/C Closed: D Date: 08/04/03

NCR: <u>38463</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
08/04/03	20	1. tube was over bent on the Bender. tube was under bent at first and Bender operator tried to rebend. First tube over bent b 1.5'	<u>[Signature]</u>	Scrap and Destroy and replace Qty <u>(X1)</u> B# <u>30682</u>	<u>[Signature]</u> 8-9-18	<u>[Signature]</u> 08/04/03	<u>[Signature]</u>	<u>[Signature]</u> 08/04/03

NOTE: Date & initial all entries

Date: Tuesday, 08/04/2008 4:54:55 PM
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Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 350 SKIDTUBE EXTRUSION (BENT)

Job Number: 38463

Part Number: D26003BENT

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

QC21

FINAL INSPECTION/W/O RELEASE



08/04/08

Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



UMF 08-04-2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



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CHECKED <i>KE</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D2600	REV. 0 SHEET 1 OF 5
DATE 98.08.20		TITLE EXTRUSION	SCALE 1:1
A	97.01.21	NEW ISSUE	
B	97.09.09	CHANGE MATERIAL SPEC.	
C	98.04.16	ADD D2600-3, UPDATE D2600-1 WIDTH, ADD DIE NO.	
D	98.08.20	INCREASE MIN. UTS TO 40 KSI	
DI	01.04.17	ADD PART NUMBERS & DIE NUMBERS <i>4 GP</i>	

RELEASED
98.08.25 DS

GENERAL NOTES

1. MATERIAL: 6061-T6 (QQ-A-200/8)

MINIMUM YIELD TENSILE STRENGTH = 35 ksi
MINIMUM ULTIMATE TENSILE STRENGTH = 40 ksi
MINIMUM ELONGATION = 8 %

A SAMPLE FROM EACH BATCH WILL BE PULL TESTED
TO ASTM STANDARD B221 BY AN APPROVED TESTING
FACILITY TO ENSURE THAT THE BATCH MEETS THE
ABOVE MINIMUM MECHANICAL PROPERTIES.

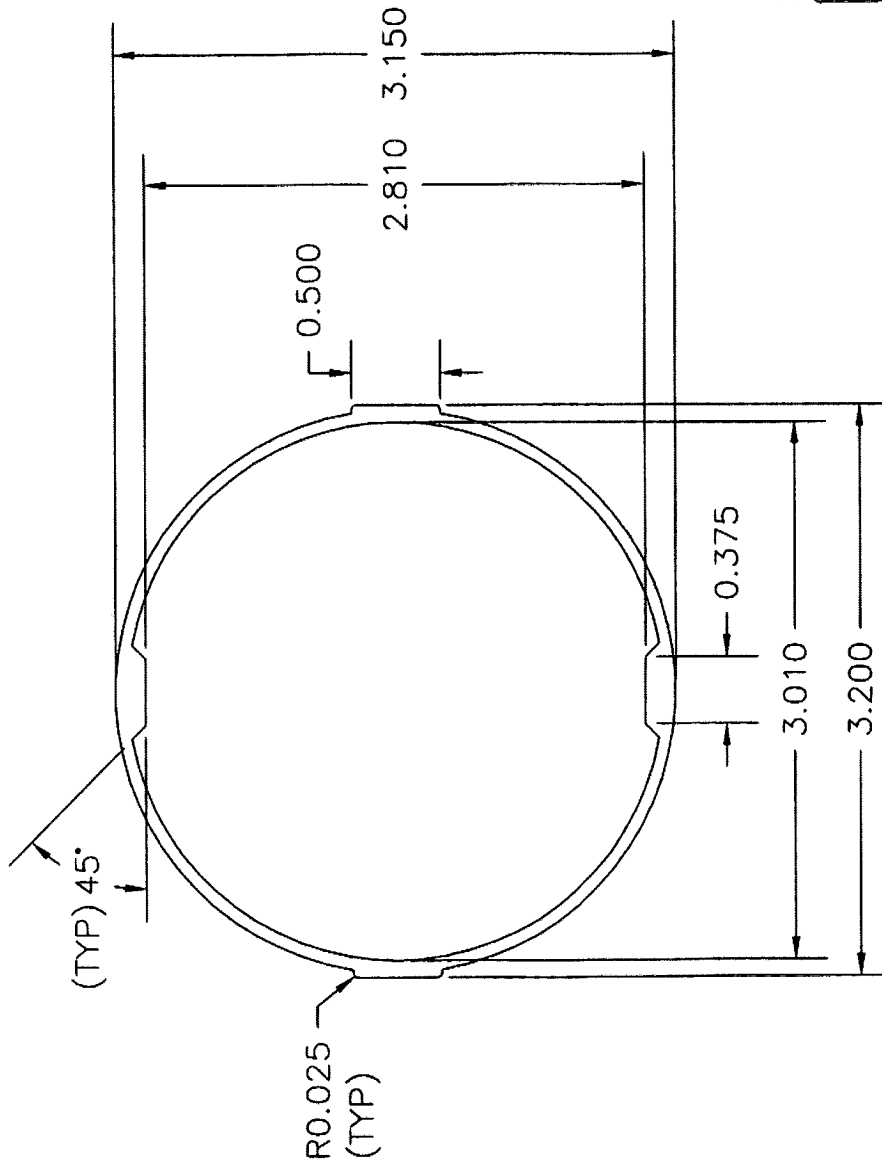
2. BREAK ALL SHARP CORNERS 0.010 MAX.
3. NO TOOLING MARKS.
4. TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE
NOTED.
5. ALL DIMENSIONS ARE IN INCHES.

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DATE 98.08.20		TITLE EXTRUSION	SCALE 1:1

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98.8.25 DS



D2600-1

MANUFACTURED WITH CARADON INDALEX DIE # MH-18870
OR BON L DIE # 89712-1 (PREFERRED CHOICE)

PART NUMBER IS D2600-1-XXX WHERE XXX IS CUT LENGTH IN INCHES (EG. D2600-1-160 IS 160" LONG)

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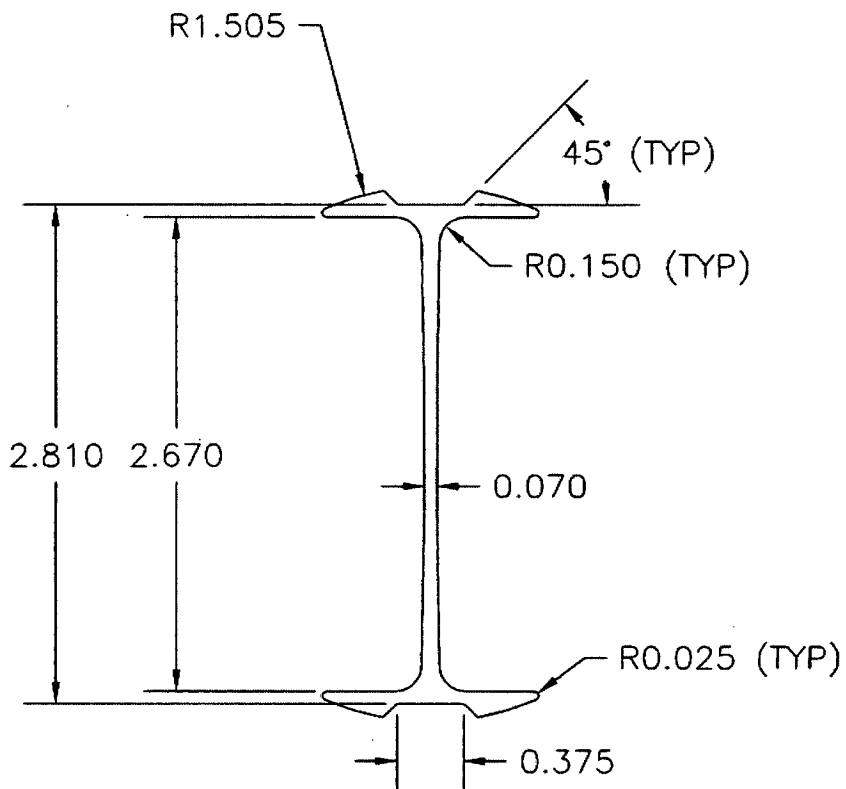


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DATE 98.08.20	TITLE EXTRUSION	SCALE 1:1	

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98.8.25. BS



D2600-5

MANUFACTURED WITH CARADON INDALEX DIE # MS-18871
PART NUMBER IS D2600-5-XXX WHERE XXX IS CUT LENGTH IN INCHES
(EG. D2600-5-108 IS 108" LONG)



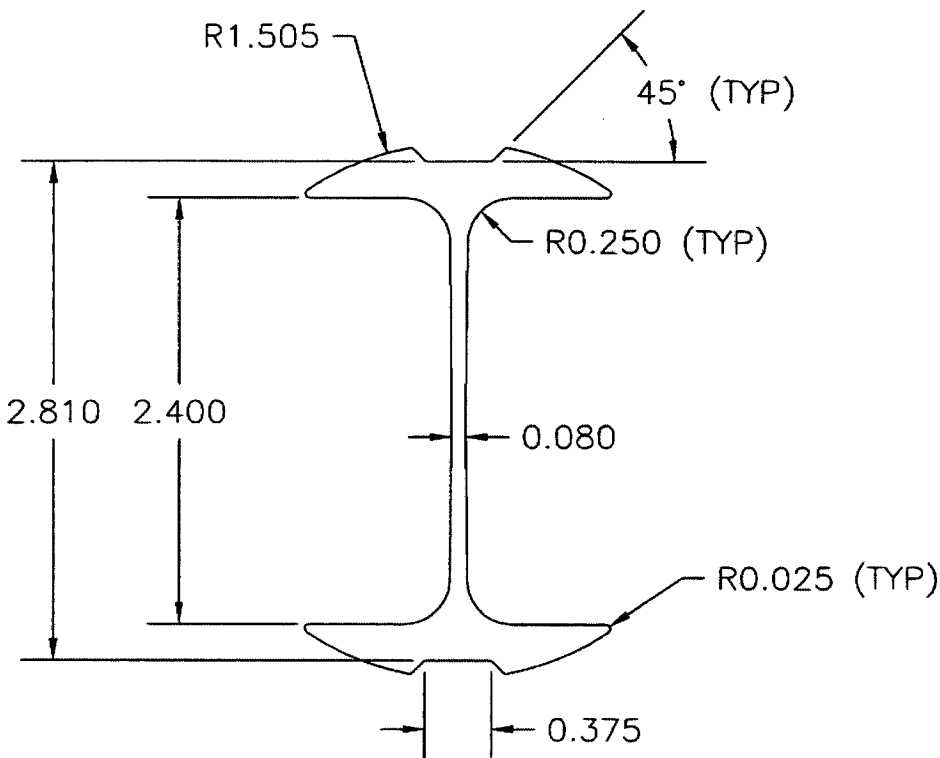
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DATE 98.08.20	TITLE EXTRUSION	REV. 0 SHEET 5 OF 5
		SCALE 1:1

RELEASED
98.8.25 DS



D2600-7

MANUFACTURED WITH CARADON INDALEX DIE # MS-18872
PART NUMBER IS D2600-7-XXX WHERE XXX IS CUT LENGTH IN INCHES
(EG. D2600-7-125 IS 125" LONG)





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DATE 07.05.17		TITLE 350 SKIDTUBE ASSEMBLY SCALE NTS	
REV	DATE	DESCRIPTION	
A	98.04.16	NEW ISSUE	
B	98.09.01	CHANGE MS24694-S293 TO AN8-16A	
C	98.11.18	ADD D2750-3 / D2750-4; INCORPORATE D2738 AND D2740	
D	06.01.05	ADD HOLES AND SPACERS FOR APICAL FLOATS INCORPORATE DEO 9133 / 9157	
E	07.05.17	CHANGE TO STAINLESS STEEL WEARPLATES; ADD RUBBER GASKETS; CHANGE INSERTS; ADD D3631-1; REMOVE QTY(38) NAS1515H3L; REMOVE QTY(10) NAS1515H8L; REMOVE D2741, QTY(2) AN960C816; REMOVE QTY(2) MS21083C8	

RELEASED
07.08.02

Qty -041	Qty -042	Qty -043	Qty -044	Part Number	Description
X				D2750-041	SKIDTUBE ASSEMBLY, LH
	X			D2750-042	SKIDTUBE ASSEMBLY, RH
		X		D2750-043	SKIDTUBE ASSEMBLY, LH
			X	D2750-044	SKIDTUBE ASSEMBLY, RH
1	1	1	1	D2739	WEB
8	8	8	8	D2743	SPACER
1	1	1	1	D2744	CAP
8	8	8	8	D2745	BUSHING
1				D2750-1	SKIDTUBE WELDMENT, LH
	1			D2750-2	SKIDTUBE WELDMENT, RH
		1		D2750-3	SKIDTUBE WELDMENT, LH
			1	D2750-4	SKIDTUBE WELDMENT, RH
1		1		D3488-041	BLADE FITTING, LH
	1		1	D3488-042	BLADE FITTING, RH
4	4	4	4	D3490-1	SPACER
4	4			D3490-3	SPACER
		4	4	D3490-5	SPACER
8	8	8	8	D3492-041	PLUG ASSEMBLY
8	8			D3492-043	PLUG ASSEMBLY
		8	8	D3492-045	PLUG ASSEMBLY
1	1	1	1	D3535-13	WEARSHOE
1	1	1	1	D3535-25	WEARSHOE
1	1	1	1	D3535-35	WEARSHOE
1	1	1	1	D3536-13	GASKET
1	1	1	1	D3536-25	GASKET
1	1	1	1	D3536-35	GASKET
5	5	5	5	D3537-1	WEARPAD
8	8	8	8	D3631-1	WASHER
42	42	42	42	ALS4-1032-225	INSERT (OR ALS7-1032-225, AKS4-1032-225, AELS-1032-225)
38	38	38	38	AN3C5A	BOLT
4	4	4	4	AN3C6A	BOLT
4	4	4	4	AN3C7A	BOLT
4	4	4	4	AN6C44A	BOLT
1	1	1	1	AN8C35A	BOLT
46	46	46	46	AN960C10L	WASHER
2	2	2	2	AN960C816L	WASHER
4	4	4	4	MS21043-6	NUT
1	1	1	1	MS21083C8	NUT
4	4	4	4	NAS1515H3L	WASHER
2	2	2	2	NAS1515H8L	WASHER

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DATE 07.05.17		TITLE 350 SKIDTUBE ASSEMBLY	SCALE NTS

GENERAL NOTES:

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07-08-02 [Signature]

1. ALL DIMENSIONS ARE IN INCHES.
2. TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
3. MAKE FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0).
4. DAMAGE TOLERANCE ON BENDING:
THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 12 INCHES ABOVE THE GROUND. NO GOUGING IS ACCEPTABLE IN THE FLAT PORTION OF THE TUBE. GOUGES UP TO 0.020 ARE ACCEPTABLE IN THE BENT PORTION OF THE TUBE. TUBE O.D. SHOULD BE 3.150 ± 0.010 IN THE FLAT PORTION OF THE TUBE. TUBE O.D. SHOULD BE 3.15 ± 0.030 IN THE BENT PORTION OF THE TUBE.
5. ALL HOLES DRILLED ON CENTERLINES EXCEPT THOSE NOTED BY SECTIONS C-C, D-D AND F-F.
6. WELDING TO BE DONE PER DART QSI 004.
7. FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:
MINIMUM YIELD TENSILE STRENGTH = 35 ksi
MINIMUM ULTIMATE TENSILE STRENGTH = 38 ksi
8. FINISH:
ACID ETCH, ALODINE ASSEMBLY PER DART QSI 005 4.1 PRIOR TO INSTALLING D2739 WEB.
POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED TO 1.0 ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL).
9. INSTALL ALS4-1032-225 INSERTS AFTER FINISH AS INDICATED IN D2750-1/-2/-3/-4 WELDING DETAIL ON PAGE 4 AND 5. DRILL 'F' SIZE HOLES ($\emptyset 0.297$) FOR WEARSHOE INSERTS.
10. D3488-041 (OR D3488-042) BLADE FITTING AND AN3C5A/AN3C7A WEARSHOE BOLTS TO BE INSTALLED USING SIKAFLEX-241 (OR EQUIVALENT) SEALANT.
11. SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND AFTER INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS POWDER COATING WITH MEK DEGREASER.

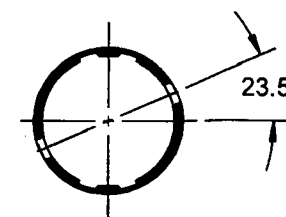
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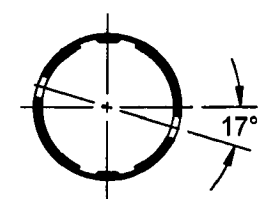
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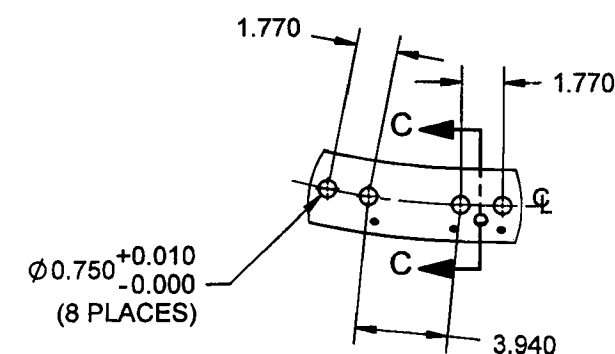


SECTION C-C
SCALE 1:4

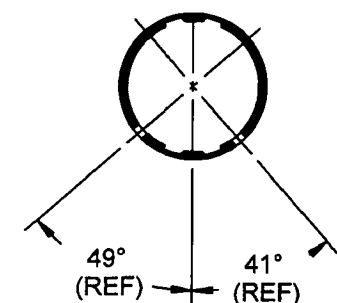


SECTION D-D
SCALE 1:4

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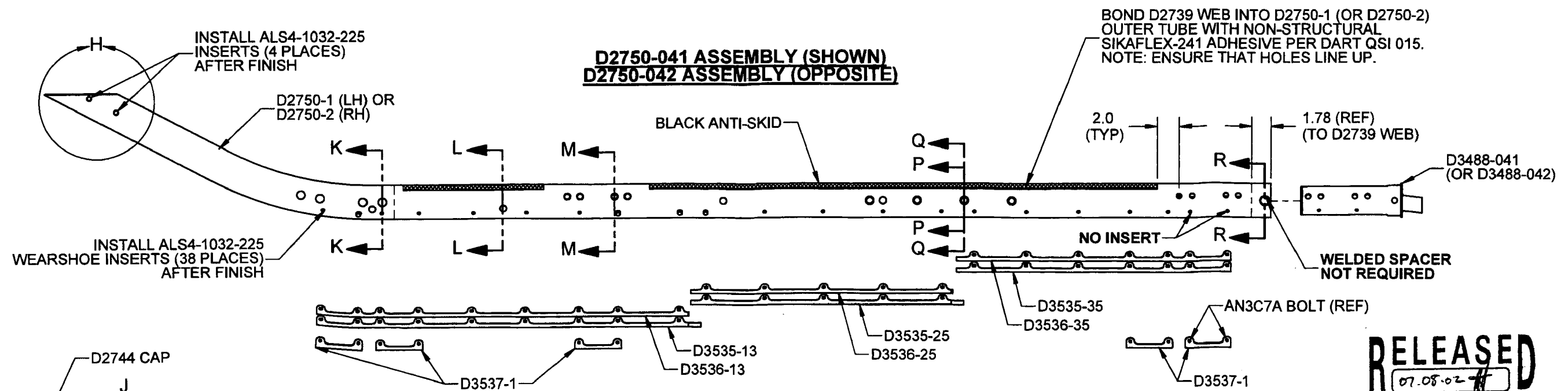


DETAIL B
SCALE 1:8
(ALL DIMENSIONS ARE
STRAIGHT LINE DIMENSIONS)

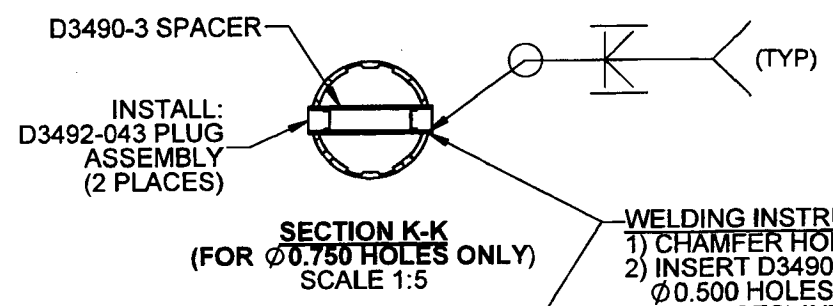
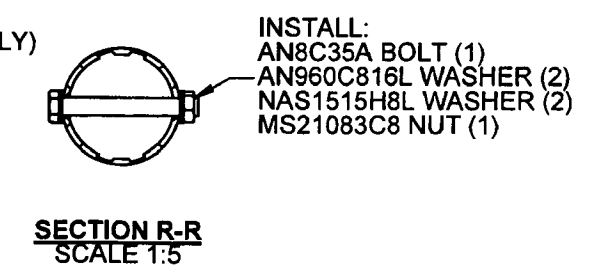
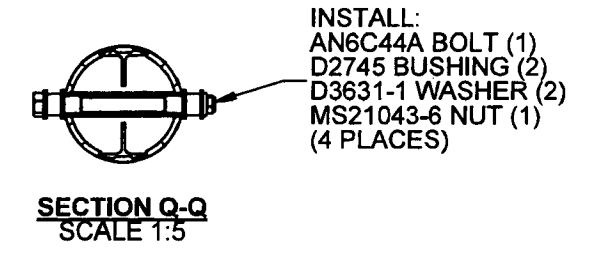
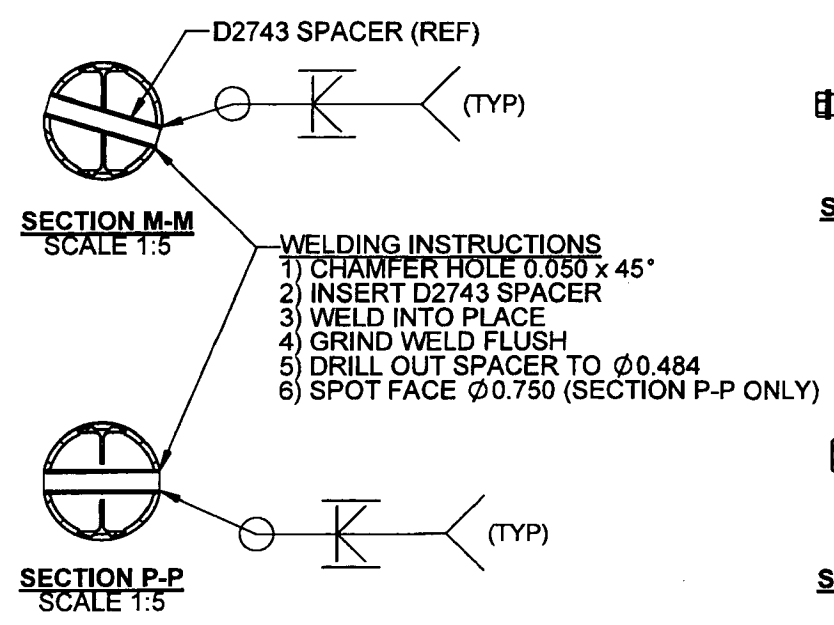
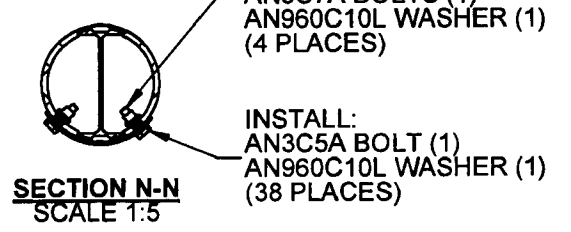
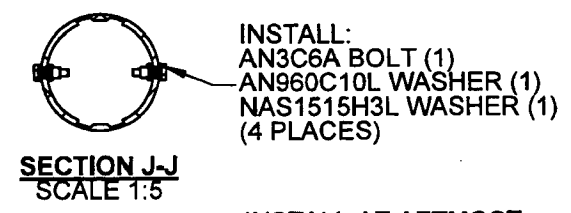
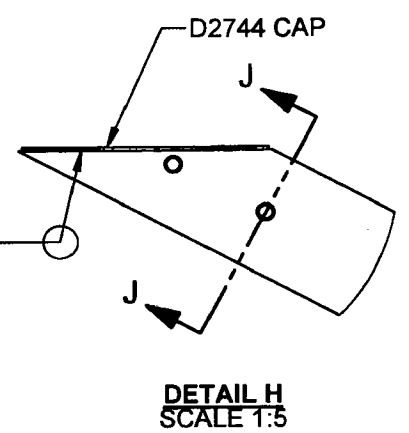


SECTION F-F
SCALE 1:4

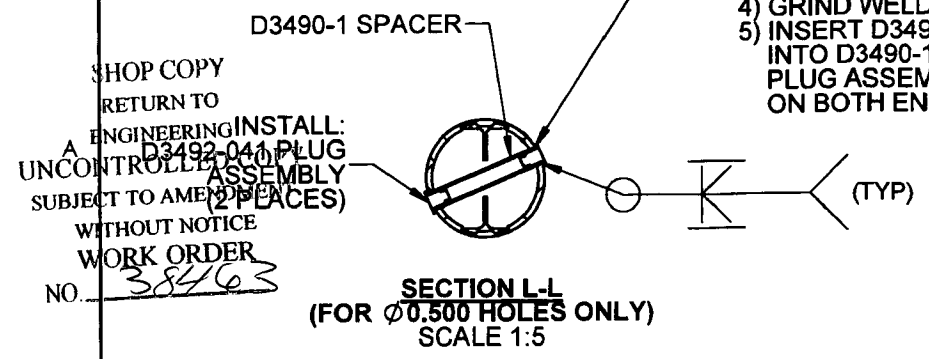
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DATE 07.05.17		TITLE 350 SKIDTUBE ASSEMBLY	SCALE 1:20
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- WELDING INSTRUCTIONS**
- 1) CHAMFER HOLE 0.050 x 45°
 - 2) INSERT D3490-1 SPACER (4 PLACES) INTO Ø0.500 HOLES OR INSERT D3490-3 SPACER (4 PLACES) INTO Ø0.750 HOLES
 - 3) WELD INTO PLACE
 - 4) GRIND WELD FLUSH
 - 5) INSERT D3492-041 PLUG ASSEMBLY (8 PLACES) INTO D3490-1 SPACER OR INSERT D3492-043 PLUG ASSEMBLY (8 PLACES) INTO D3490-3 SPACER ON BOTH ENDS AFTER FINISH

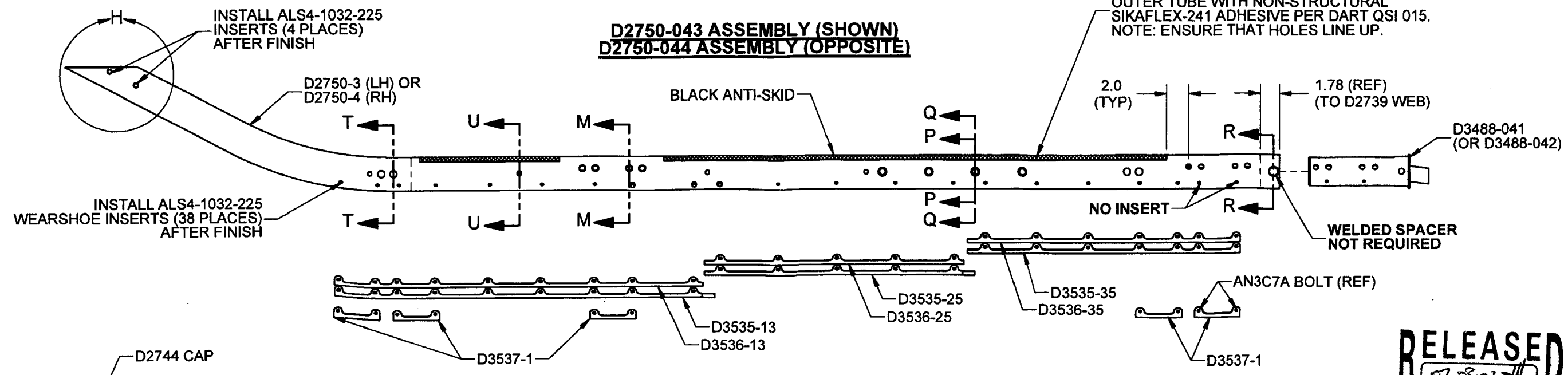


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				D2750	SHEET 4 OF 5
DATE	07.05.17			TITLE	SCALE
				350 SKIDTUBE ASSEMBLY	1:10
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**D2750-043 ASSEMBLY (SHOWN)
D2750-044 ASSEMBLY (OPPOSITE)**

BOND D2739 WEB INTO D2750-3 (OR D2750-4)
OUTER TUBE WITH NON-STRUCTURAL
SIKAFLEX-241 ADHESIVE PER DART QSI 015.
NOTE: ENSURE THAT HOLES LINE UP.



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